

DB 241 HHSHASHSLPNSPSWSS-GNHGODSLVAFVLAHGLVSVGLAAAYIRPK 299
 QY 239 PEYKADPCTYVSLVAFVFTFRITWDVVIIEGVPSHANYDIKALMKIEDVYSVE 358
 DB 300 PEYKADPCTYVSLVAFVFTFRITWDVVIIEGVPSHANYDIKALMKIEDVYSVE 359
 QY 359 DLNWSLTSGKSTAIYHQLIPGSSKWEVQSKANHLNTFGWCTCTLOQSYROEVD 418
 DB 360 DLNWSLTSGKSTAIYHQLIPGSSKWEVQSKANHLNTFGWCTCTLOQSYROEVI 419
 QY 419 RTCANCOSSS 428
 DB 420 RTCANCOSSS 429

RESULT 3

ZNT4 RAT STANDARD; PRT; 430 AA.

AC 055174;
 DT 30-MAY-2000 (Rel. 39, Created)
 DT 30-MAY-2000 (Rel. 39, Last sequence update)
 DT 15-MAR-2004 (Rel. 43, Last annotation update)
 DE Zinc transporter 4 (Znt-4) (Drl 27 protein).
 GN SLC30A4 OR ZNT4.
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 OX NCBI_Taxid=10116;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=Miscar; TISSUE=Brain;
 RX MEDLINE=20068535; PubMed=1060821;
 RA Murgita C., Vespignani I., Cerase J., Nobili F., Perozzi G.,
 RT "Cloning, expression, and vesicular localization of zinc transporter
 RT Drl 27/Znt4 in intestinal tissue and cells."
 RL Am. J. Physiol. 277:G1231-G1239 (1999).
 CC -1- FUNCTION: Probably involved in zinc transport out of the
 CC cytoplasm, may be by sequestration into an intracellular
 CC compartment.
 CC -1- SUBUNIT: Mediates heterodimeric interactions with at least one
 CC specific partner.
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein. Localized in
 CC endosomal vesicle membrane (Probable). In the polarized
 CC enterocytes, it is mainly localized in the basal cytoplasmic
 CC region.
 CC -1- TISSUE SPECIFICITY: Widely expressed. Highly expressed in brain
 CC and testes. Also expressed in small intestine, medulla, lung,
 CC kidney, stomach and colon. Expressed at lower level in other
 CC tissues.
 CC -1- DEVELOPMENTAL STAGE: Developmentally regulated in the intestine.
 CC -1- INDUCTION: No change in response to zinc deprivation.
 CC -1- DOMAIN: Contains a histidine-rich region which is a ligand for
 CC zinc and an aspartate-rich region which is a potential ligand for
 CC zinc.
 CC -1- SIMILARITY: Belongs to the cation diffusion facilitator family of
 CC transporters (CDF, TC 2.A.4). SLC30A subfamily.
 CC -----
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 CC -----
 CC EMBL: Y16774; CAA76372.1;
 DR InterPro: IPR002524; Cation efflux.
 DR Pfam: PF01545; Cation efflux; 1.
 DR TIGRFAMs: TIGR01297; CDF; 1.
 DR Zinc transporter; Transport; Transmembrane; Multigene family.
 FT DOMAIN 1 113 CYTOPLASMIC (POTENTIAL).
 RT TRANSMEM 114 134 POTENTIAL.

FT DOMAIN 135 143 VACUOLAR (POTENTIAL).
 FT TRANSMEM 144 164 POTENTIAL.
 FT DOMAIN 165 178 CYTOPLASMIC (POTENTIAL).
 FT TRANSMEM 179 199 POTENTIAL.
 FT DOMAIN 200 216 VACUOLAR (POTENTIAL).
 FT TRANSMEM 217 237 POTENTIAL.
 FT DOMAIN 238 275 CYTOPLASMIC (POTENTIAL).
 FT TRANSMEM 276 296 POTENTIAL.
 FT DOMAIN 297 311 VACUOLAR (POTENTIAL).
 FT TRANSMEM 312 332 POTENTIAL.
 FT DOMAIN 333 430 CYTOPLASMIC (POTENTIAL).
 FT TRANSMEM 17 96 ASP-RICH (ACIDIC).
 FT DOMAIN 241 249 HIS-RICH.
 SQ SEQUENCE 430 AA; 47702 MW; F34CED3FAAF05FB CRC64;

Query Match 91.2%; Score 1990.5; DB 1; Length 430;
 Best Local Similarity 90.7%; Pred. No. 7.6e-148;
 Matches 390; Conservative 19; Mismatches 18; Indels 3; Gaps 2;

QY 1 MAGSGAKRUKSMLRDAPLFLNDTSAPFDEAGDEGLSHFNRLRVVADGSEADER 60
 DB 1 MAGSGAKRUKSLRRDDAPLFLNDTSAPFDEAGDEGLSHFNRLRVVADGSEADER 60
 QY 61 PVNGAHPPTLQADDSDLDQDPLPTNSQLKXDCNCKGKOEIKKRVKRLITAVL 120
 DB 61 PVNGAHPALQADDSDLDQDPLPTNSQLKXDCNCKGKRELLKRVKRLITAVL 120
 QY 121 YLFPMIGELVGYTANSIAMTALMLTDLNAILITLALMLSSKSPTRFPGFRL 180
 DB 121 YLFPMIGELVGYTANSIAMTALMLTDLNAILITLALMLSSKSPTRFPGFRL 180
 QY 181 VLMSISVLAIVYLNGELLYEAVQRTIHNNYINNGDMLITAVGVAVVINGPILNOSG 240
 DB 181 VLMSISVLAIVYLNGELLYEAVQRTIHNNYINNGDMLITAVGVAVVINGPILNOSG 240
 QY 241 HHSHASHSLPNSPSWSS-GSHGQDGLVRAFAVNALDGLVSVGLAAAYIRPK 299
 DB 241 HHSHASHSLPNSPSWSS-GSHGQDGLVRAFAVNALDGLVSVGLAAAYIRPK 299
 QY 299 PEYKADPCTYVSLVAFVFTFRITWDVVIIEGVPSHANYDIKALMKIEDVYSVE 358
 DB 300 PEYKADPCTYVSLVAFVFTFRITWDVVIIEGVPSHANYDIKALMKIEDVYSVE 359
 QY 359 DLNWSLTSGKSTAIYHQLIPGSSKWEVQSKANHLNTFGWCTCTLOQSYROEVD 418
 DB 360 DLNWSLTSGKSTAIYHQLIPGSSKWEVQSKANHLNTFGWCTCTLOQSYROEVI 419
 QY 419 RTCANCOSSS 428
 DB 420 RTCANCOSSS 429

RESULT 4
 ZNT2 RAT STANDARD; PRT; 359 AA.
 ID ZNT2 RAT
 AC 062941;
 DT 30-MAY-2000 (Rel. 39, Created)
 DT 30-MAY-2000 (Rel. 39, Last sequence update)
 DT 15-MAR-2004 (Rel. 43, Last annotation update)
 DE Zinc transporter 2 (Znt-2).
 GN SLC30A2 OR ZNT2.
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 OX NCBI_Taxid=10116;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=Sprague-Dawley; TISSUE=Kidney;
 RX MEDLINE=96203098; PubMed=8617223;
 RA Palmer R.D., Cole T.B., Findley S.D.,
 RT "Znt-2, a mammalian protein that confers resistance to zinc by
 RT facilitating vesicular sequestration."
 RL EMBO J. 15:1784-1791 (1996).